

ASSIGNMENT 2

Textbook Assignment: "Drafting Equipment." Pages 2-1 through 2-27.

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- 2-1. A drawing is identified as technical or illustrative, depending on its
1. purpose
 2. character
 3. type
 4. quality
- 2-2. The graphic representation of a utility system prepared by an EA is called a/an
1. industrial drawing
 2. mechanical drawing
 3. engineering survey
 4. qualitative graph
- 2-3. The drawing of quantitative or qualitative display charts and graphs is characteristic of which of the following types of engineering drafting?
1. Construction
 2. Topographic
 3. Administrative
 4. Each of the above
- 2-4. An engineering chart that shows relationships, rather than numerical values is called
1. quantitative
 2. qualitative
 3. visual
 4. statistical
- 2-5. What type of engineering display chart is prepared to show the relationship between planned and actual work accomplishment?
1. Management information
 2. Network analysis
 3. Time-and-work
 4. Progress
- 2-6. To provide uniform interpretation, all Navy drawings must be prepared according to which of the following manuals or standards?
1. NAVFAC design manuals
 2. Military standards
 3. DoD standards
 4. All of the above
- 2-7. References to obsolete drawing symbols and unusual drawing features are normally found in what source(s)?
1. Architectural Graphic Standards
 2. NAVFAC design manuals
 3. Military standards
 4. Explanatory notes and legends on the drawing
- IN ANSWERING QUESTIONS 2-8 THROUGH 2-12, SELECT THE PUBLICATION FROM THE LIST THAT YOU SHOULD USE AS A REFERENCE TO LOCATE THE SUBJECT MATTER IDENTIFIED.
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| <p>A. MIL-HDBK-1006/1</p> <p>B. MIL-STD-12</p> <p>C. MIL-STD-17</p> <p>D. ANSI Y14.2</p> |
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- 2-8. Mechanical symbols.
1. A
 2. B
 3. C
 4. D
- 2-9. Policy and procedures for specifications preparation.
1. A
 2. B
 3. C
 4. D
- 2-10. Abbreviations.
1. A
 2. B
 3. C
 4. D
- 2-11. Line conventions and lettering.
1. A
 2. B
 3. C
 4. D
- 2-12. Policy and procedures for project drawings.
1. A
 2. B
 3. C
 4. D

- 2-13. A standard NMCB drafting kit contains sufficient supplies and equipment to outfit a total of how many drafters?
1. Ten
 2. Two
 3. Three
 4. Five
- 2-14. Which of the following types of drafting media are used by SEABEE drafters?
1. Tracing paper, tracing cloth, and detail paper
 2. Tracing paper, profile paper, and cross-section paper
 3. Tracing cloth, film, and tracing paper
 4. Tracing cloth, tracing paper, and graph paper
- 2-15. Compared with bristol board, illustration board differs in what respect?
1. It has only one white drawing surface
 2. It is thinner and less rigid
 3. It comes in a smaller size
 4. It cannot be used for making small signs and charts
- 2-16. Which of the following grades of pencil lead is the hardest?
1. F
 2. HB
 3. 2H
 4. 4B
- 2-17. Compared to an HB-grade pencil lead, an F-grade lead is
1. thinner and softer
 2. thinner and harder
 3. thicker and softer
 4. thicker and harder
- 2-18. Which of the following types of erasers is best suited for removing unwanted smudges from ink drawings prepared on tracing vellum?
1. Vinyl
 2. Pink pearl
 3. Ruby red
 4. Art gum
- 2-19. When erasing with an electric eraser, which of the following actions should you avoid taking because of the damage that may occur?
1. Erasing lightly penciled lines
 2. Erasing heavily inked lines
 3. Erasing closely spaced lines
 4. Holding the eraser steady in one spot
- 2-20. To prevent fresh ink lines from spreading, what method should you use to prepare the surface of the drafting medium?
1. Cover it with a film of specially prepared chemical
 2. Rub it with fine bone dust
 3. Rub it with pulverized art gum particles
 4. Scrape it lightly with a steel eraser
- 2-21. Concerning the use of drawing boards, which of the following statements accurately describes a correct procedure, method, or theory?
1. For a right-handed drafter, the working edge is the left vertical edge of the board
 2. For any drafter the preferred working edge is the lower horizontal edge of the board
 3. It is assumed that all edges of the board are perfectly square
 4. The drawing surface of the board is leveled by adjusting the hinged attachment
- 2-22. Which of the following statements concerning the use, testing, or care of the T-square is an accurate guideline, procedure, or method?
1. To draw a long continuous vertical line, set the head of the T-square against the upper edge of the drawing board
 2. To prevent warpage of the T-square when it is not in use, hang it vertically by the hole in its blade
 3. To test a T-square, draw coinciding lines with both the top and bottom blade edges
 4. To test a T-square, draw a continuous line using both vertical edges of the drawing board

- 2-23. Instead of using a T-square, some drafters prefer a parallel straightedge because it offers which of the following advantages?
1. It allows the drafter to produce cleaner drawings
 2. It helps prevent ink blots on small drawings
 3. It allows the drafter to work more accurately on large drawings
 4. It helps keep drawings from sliding off an inclined drawing board
- 2-24. What is the most desirable source of illumination for drafting work?
1. Direct sunlight
 2. Adjustable fluorescent table lamps
 3. Overhead ceiling lights
 4. Natural light
- 2-25. Assuming that a drafter is right-handed, the lighting should be from what direction?
1. Left-front
 2. Right-front
 3. Over the right shoulder
 4. Over the left shoulder

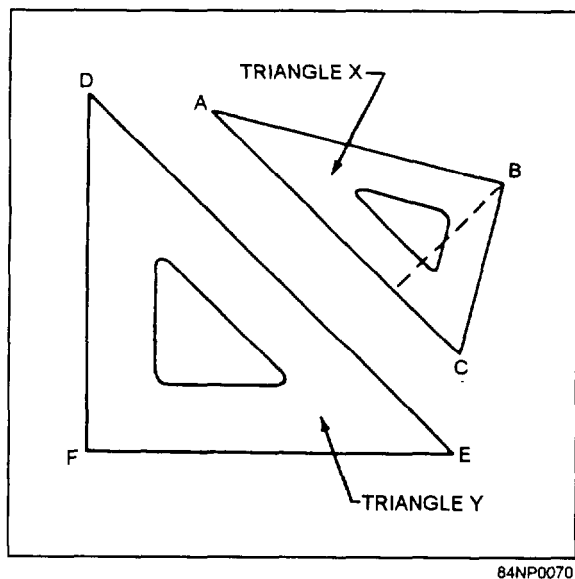


Figure 2A

IN ANSWERING QUESTIONS 2-26 AND 2-27, REFER TO TRIANGLES X AND Y IN FIGURE 2A.

- 2-26. The size of a 30°-60° triangle (X) is designated by the
1. length of AB
 2. length of BC
 3. size of angle A or C
 4. perimeter of the triangle
- 2-27. The size of a 45° triangle (Y) is designated by the
1. length of DE
 2. length of DF or EF, whichever you prefer
 3. perimeter of the triangle
 4. size of angle D or E
- 2-28. Assume that you are testing the straightness of a 45° triangle. The first step you should take is to place the triangle against a T-square and draw a vertical line. The next step is to take what actions?
1. Rotate the triangle and draw another vertical line, which should coincide with the first line
 2. Slide the triangle to the left (or right) and draw an intersecting 45° line, which can be tested for accuracy with a protractor
 3. Reverse the triangle and draw another vertical line along the same edge. This line should coincide with the first
 4. Reverse the T-square and draw another vertical line along the same edge. This line should coincide with the first
- 2-29. In which of the following ways are circular protractors graduated?
1. Clockwise from 0° to 90° and 180° to 270°, and counterclockwise from 360° to 270° and 180° to 90°
 2. Clockwise and counterclockwise from 0° to 180°
 3. Clockwise and counterclockwise from 0° to 360°
 4. Clockwise in quadrants from 0° to 90°
- 2-30. Without estimating, what is the minimum angle that can be set on the adjustable triangle shown in textbook figure 2-13?
1. 30 seconds
 2. 15 seconds
 3. 30 minutes
 4. 1 degree
- 2-31. For which of the following shapes should you NOT use french curves?
1. Spirals
 2. Ellipses
 3. Parabolas
 4. Circular arcs

IN ANSWERING QUESTIONS 2-32 THROUGH 2-35,
REFER TO TEXTBOOK FIGURE 2-15.

- 2-32. Of the following instruments, which one is held in a set position by friction?
1. C
 2. F
 3. J
 4. L
- 2-33. A series of eight circles with a diameter of 1/2 inch to 10 inches is drawn from a single center. What instruments should you use to ink the circles?
1. B and C
 2. B, C, and D
 3. B, C, and I
 4. B, C, I, and K
- 2-34. Which of the following instruments require setscrew adjustment of the nibs?
1. B, C, F, and G
 2. B, F, G, and K
 3. B, C, K, and L
 4. F, G, K, and L
- 2-35. Of the following instruments, which one should you use to divide a 7 1/2-inch line into 20 equal segments?
1. A
 2. C
 3. J
 4. K
- 2-36. Bringing together the points of dividers by bending the leg joints is a means of testing for
1. sharpness of the points
 2. correct length of the points
 3. alignment of the dividers
 4. correct adjustment of the friction joints
- 2-37. When divider points become slightly uneven in length, what should you do to repair them?
1. Grind the points separately, in a horizontal position, by rubbing them on a whetstone
 2. Hold the points vertically together and grind them lightly by drawing them back and forth against a whetstone
 3. Grind the points separately, in a horizontal position, by twirling them against a whetstone
 4. Replace the needlepoints

- 2-38. In what way, if any, should the needles of compasses and dividers compare in point size?
1. Those of the compass should be slightly larger
 2. Those of the compass should be slightly smaller
 3. They should be the same size
 4. None; the size does not matter
- 2-39. Which of the following methods should you use to protect drawing instruments against corrosion?
1. Clean them with a soft cloth and coat them with a light film of oil
 2. Polish them occasionally with metal polish
 3. Clean them often with a chemical provided by the manufacturer of the instrument
 4. Rub them lightly with emery paper and apply a light film of oil

IN ANSWERING QUESTIONS 2-40 THROUGH 2-44,
SELECT THE DRAFTING INSTRUMENT FROM THE
FOLLOWING LIST THAT SHOULD BE USED TO
PERFORM THE DRAWING TASK LISTED.

A. HAIRSPRING DIVIDERS
B. DROP BOW PEN
C. PROPORTIONAL DIVIDERS
D. BEAM COMPASS

- 2-40. Ink a 3/32-inch radius circle.
1. A
 2. B
 3. C
 4. D
- 2-41. Draw a circular arc that has a 30-inch radius.
1. A
 2. B
 3. C
 4. D
- 2-42. Reduce or enlarge a drawing.
1. A
 2. B
 3. C
 4. D
- 2-43. Transfer a measurement from one scale to another.
1. A
 2. B
 3. C
 4. D

- 2-44. Draw a 60-inch radius circle.
1. A
 2. B
 3. C
 4. D
- 2-45. The scale of 1/6,000 is equivalent to which of the following equations?
1. 1 in = 300 ft
 2. 1 in = 500 ft
 3. 1 in = 600 ft
 4. 1 in = 1,000 ft
- 2-46. To show details of an object drawn to full scale on a drawing, you should present the details in what way?
1. Scaled up
 2. Scaled down
 3. Drawn to half scale
 4. Drawn to full scale
- 2-47. Scales made of which of the following materials are the most accurate?
1. Plastic
 2. Yellow hardwood
 3. Boxwood
 4. White pine
- 2-48. Which of the following scale shapes provides the most scale faces?
1. Two bevel
 2. Opposite bevel
 3. Four bevel
 4. Triangular

IN ANSWERING QUESTIONS 2-49 THROUGH 2-52, SELECT THE TYPE OF SCALE FROM THE FOLLOWING LIST THAT YOU SHOULD USE TO ACCOMPLISH THE TASK LISTED.

<p>A. METRIC SCALE</p> <p>B. ENGINEER'S SCALE</p> <p>C. ARCHITECT'S SCALE</p>

- 2-49. Lay out drawing dimensions given in feet and inches.
1. A
 2. B
 3. C
- 2-50. Lay out drawing dimensions given in tenths of a foot.
1. A
 2. B
 3. C

- 2-51. Measure given dimensions to a scale of 1 cm = 50 m.
1. A
 2. B
 3. C
- 2-52. Measure given dimensions to a scale of 1 in = 200 ft.
1. A
 2. B
 3. C
- 2-53. What step must you take before using an engineer's scale for scaling when the scale is expressed as a fraction?
1. Determine the fractional equivalent of the scale on the engineer's scale
 2. Multiply the scale numbers by 10
 3. Multiply the scale numbers by 100
 4. Multiply all measurements by 10
- 2-54. What scale on the engineer's scale should you use to determine that a line drawn 5 inches long is equivalent to 200 feet?
1. 10 scale
 2. 20 scale
 3. 40 scale
 4. 50 scale
- 2-55. You want to draw the outline of a 200-foot by 200-foot rectangular area on an 8-inch by 10 1/2-inch sheet of paper. Which scale should you use to get the largest drawing that will fit on the paper?
1. 10 scale
 2. 30 scale
 3. 50 scale
 4. 60 scale
- 2-56. Before using a map measure to determine the length of a pipeline on a SEABEE drawing, you should first take what step?
1. Adjust the tracing wheel with an odometer
 2. Trace over the line to be measured
 3. Set the scale indicator to the numerical scale indicated on the drawing
 4. Trace over the graphical scale to ensure the accuracy of the reading

2-57. In what position should you hold the technical fountain pen when drawing a straight line?

1. Perpendicular to the drawing surface
2. Tilted slightly toward you
3. Tilted in the direction the line is drawn
4. Tilted opposite to the direction the line is drawn